# TREASURY INSPECTOR GENERAL FOR TAX ADMINISTRATION



Low Participation and Tax Return Volumes
Continue to Hinder the Transition of
Individual Income Tax Returns to the
Modernized e-File System

**September 29, 2011** 

Reference Number: 2011-40-131

This report has cleared the Treasury Inspector General for Tax Administration disclosure review process and information determined to be restricted from public release has been redacted from this document.

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# **HIGHLIGHTS**

LOW PARTICIPATION AND TAX RETURN VOLUMES CONTINUE TO HINDER THE TRANSITION OF INDIVIDUAL INCOME TAX RETURNS TO THE MODERNIZED E-FILE SYSTEM

# **Highlights**

Final Report issued on September 29, 2011

Highlights of Reference Number: 2011-40-131 to the Internal Revenue Service Commissioner for the Wage and Investment Division.

# **IMPACT ON TAXPAYERS**

The Internal Revenue Service (IRS) continues to transition from its existing electronic filing (e-file) platform, referred to as the Legacy e-File system, to the Modernized e-File (MeF) system. The MeF system provides real-time processing of tax returns and extensions that will improve error detection, standardize business rules, and expedite acknowledgments.

# WHY TIGTA DID THE AUDIT

This audit was initiated because, once fully implemented, the MeF system will replace the current Legacy *e-file* system. The objective of this review was to evaluate the continued implementation of the MeF system to determine whether individual income tax returns will be accurately and timely processed and whether sufficient progress is being made to replace the Legacy *e-File* system.

# WHAT TIGTA FOUND

Processes used to test and monitor the MeF system do not ensure MeF system business rules designed to validate basic requirements on a tax return are working as intended. As a result, the IRS continues to have limited assurance that the MeF system is accurately processing individual tax returns.

In addition, lower than expected tax return transmitter participation and tax return volumes raise significant concerns regarding the IRS's ability to fully replace the Legacy *e-File* system for the 2013 Filing Season. For example, only

19 (28 percent) of the 67 tax return preparation software packages used to file tax returns in the Legacy *e-File* system were used to file MeF tax returns. Also, the IRS received only 8.7 million individual tax returns through the MeF system as of April 18, 2011, significantly lower than the 35 million tax returns the IRS expected for the 2011 Filing Season.

Finally, the IRS has not pursued the use of the MeF system as an option to scan and attach supplemental information to *e-filed* tax returns.

# WHAT TIGTA RECOMMENDED

TIGTA recommended that the Commissioner, Wage and Investment Division, develop a comprehensive testing plan to ensure MeF system processing is accurate and adheres to the methodology developed. In addition, the IRS should correct the 12 errors TIGTA identified in our prior review of MeF system processing and continue to work with tax return transmitters and States to identify and address concerns with MeF system performance. The IRS should also ensure MeF system testing includes testing of system performance, stability of web services, and processing capacity. Finally, the IRS should adequately test the MeF system's ability to receive, process, store, and retrieve tax return attachments and promote the use of such attachments.

IRS management agreed with four of our six recommendations. Management did not agree to develop a comprehensive testing plan and indicated that the MeF system was developed under the Enterprise Life Cycle guidance, which included various testing and certification processes. Notwithstanding, the IRS's three-phase plan to test the processing of tax returns through the MeF system in the 2011 Filing Season was incomplete, and the IRS did not fully execute the steps in the test plan.

Management also disagreed with the recommendation to correct the 12 errors TIGTA identified in its review during the 2010 Filing Season that resulted in incorrect notifications to taxpayers when tax returns were rejected. The IRS indicated it had already corrected this problem; however, it has not provided any evidence the problem has been corrected.



# DEPARTMENT OF THE TREASURY WASHINGTON, D.C. 20220

September 29, 2011

**MEMORANDUM FOR** COMMISSIONER, WAGE AND INVESTMENT DIVISION

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**FROM:** Michael R. Phillips

Deputy Inspector General for Audit

**SUBJECT:** Final Audit Report – Low Participation and Tax Return Volumes

Continue to Hinder the Transition of Individual Income Tax Returns to

the Modernized e-File System (Audit # 201140030)

This report presents the results of our review to evaluate the continued implementation of the Modernized *e-File* (MeF) system to determine whether individual income tax returns will be accurately and timely processed and whether sufficient progress is being made to replace the Legacy *e-File* system for individual tax returns in the 2013 Filing Season. This audit is included in our Fiscal Year 2011 Annual Audit Plan and addresses the major management challenge of Implementing Health Care and Other Tax Law Changes.

In response to the report, Internal Revenue Service (IRS) management stated that the report contains mischaracterizations with respect to the overall quality control process and disagreed with our characterization that the MeF system underwent "limited testing" because our report principally focuses on post-deployment verification steps. We are concerned with IRS management's response in that they are fully aware that we have conducted both pre-deployment and post-deployment reviews. The IRS's pre-deployment efforts are addressed in a separate report issued earlier this year.¹ Management also indicated the comparison of the number of tax returns filed with the MeF system to the number of tax returns prepared using MeF tested and approved software is not a valid comparison. We are concerned with this statement also because we used this comparison at the request of IRS management. IRS management provided us with the information needed to make this comparison.

Management's complete response to the draft report is included in Appendix VI.

<sup>&</sup>lt;sup>1</sup> The Modernized e-File Release 6.2 Included Enhancements, but Improvements Are Needed for Tracking Performance Issues and Security Weaknesses (Reference Number 2011-20-088, issued September 8, 2011).



Copies of this report are also being sent to the IRS managers affected by the report recommendations. Please contact me at (202) 622-6510 if you have questions or Michael E. McKenney, Assistant Inspector General for Audit (Returns Processing and Account Services), at (202) 622-5916.



# Table of Contents

Background	Page	1
Results of Review	Page	4
Validation and Monitoring of Modernized e-File System Processing Continues to Be Deficient	Page	4
Recommendation 1: Page 9		
Recommendation 2: Page 10		
Lower Than Expected Tax Return Transmitter Participation and Tax Return Volumes Continue to Affect the Ability to Evaluate the Modernized e-File System	Page	11
Recommendation 3: Page 18		
Recommendation 4: Page 19		
Key Functionality of the Modernized e-File System to Attach Scanned Documents to Individual Tax Returns Is Not Being Promoted or Used	Page	19
Recommendations 5 and 6:Page 21		
Appendices		
Appendix I – Detailed Objective, Scope, and Methodology	Page	22
Appendix II – Major Contributors to This Report	Page	24
Appendix III – Report Distribution List	Page	25
Appendix IV – Individual Tax Return Forms and Schedules Included for Processing in the Modernized e-File System Release 6.2 Deployment		26
Appendix V – Description of Modernized e-File System Release 6.1 Errors Not Corrected During the 2010 Filing Season	Page	27
Appendix VI – Management's Response to the Draft Report	Page	30



# **Abbreviations**

e-file(d); e-filing Electronically file(d); electronic filing

IRS Internal Revenue Service

MeF Modernized e-File

PDF Portable Document Format

SSN Social Security Number

TY Tax Year

XML Extensible Markup Language



# Background

The Modernized *e-File* (MeF) system is a modernized, Internet-based electronic file (*e-file*) platform that is replacing the current Internal Revenue Service (IRS) *e-filing* system (referred to as the Legacy *e-File* system). Tax returns and attachments submitted through the MeF system use extensible markup language (XML), which is a different format than used in the Legacy *e-File* system.<sup>1</sup> Once fully implemented, the MeF system will provide a single method for filing all business and individual tax returns, forms, and schedules via the Internet. The MeF system provides real-time processing of tax returns that improves error detection, standardizes business rules, and expedites acknowledgments. The MeF system also allows for attachments in Portable Document Format (PDF).<sup>2</sup> Figure 1 provides a comparison of key features between the MeF and Legacy *e-File* systems.

Figure 1: Comparison of the MeF and Legacy e-File Systems

Condition	MeF <i>e-File</i> System	Legacy <i>e-File</i> System
Data Format	XML.	American Standard Code for Information Interchange.
Attachments	Accepted in the PDF.	No attachments accepted.
Transmissions	Transaction based system – processed on receipt.	Batch return system with batches processed three times daily to process transmissions.
Acknowledgements	Acknowledgments returned in real-time.	Acknowledgments returned within 2 calendar days of receipt.
Tax Return Errors	Business rules for each error condition.	Error reject codes that may address multiple conditions.
Processing Year	Year-round processing.	No e-filed tax returns after October 15.
Prior Year Returns	Prior year tax returns accepted in the 2011 Filing Season. <sup>3</sup>	Prior year tax returns are not accepted via e-file.

Source: IRS MeF and Legacy e-File systems documentation.

<sup>2</sup> The PDF is a file format for representing documents in a manner that is independent of the original application software, hardware, and operating system used to create those documents.

<sup>&</sup>lt;sup>3</sup> The period from January through mid-April when most individual income tax returns are filed. However, individuals may continue to file tax returns through October if they apply for an extension of time to file.



# MeF system Release 6.2 includes the ability to file a U.S. Individual Income Tax Return (Form 1040) for Tax Years (TY) 2009 (prior year) and 2010 (current year)

The first phase of the MeF system (Release 6.1) for individual income tax returns included the Form 1040, Application for Automatic Extension of Time To File U.S. Individual Income Tax Return (Form 4868), and 21 forms and schedules related to the Form 1040 for TY 2009. The IRS first began accepting individual tax returns through the MeF system in February 2010.

The second phase of the MeF system (Release 6.2) for individual income tax returns was implemented during the 2011 Filing Season. Release 6.2 does not provide for the filing of any additional tax forms or schedules. The primary difference between the functionality of Releases 6.1 and 6.2 is the ability for individual taxpayers to file prior year tax returns. For example, for the 2011 Filing Season, individual taxpayers were able to file both their TY 2009 and TY 2010 tax returns using the MeF system. Appendix IV details specific tax forms and schedules that were accepted by the MeF system as part of Release 6.2.

The IRS plans to fully implement the MeF system during the 2012 Filing Season, with the expectation that all individual income tax returns currently processed through the Legacy *e-File* system will be able to be filed through the MeF system. This includes expanding the MeF system to process the remaining 129 individual tax forms and schedules currently accepted by the Legacy *e-File* system. The current Legacy *e-File* system is scheduled to be retired at the end of the 2012 Filing Season (October 2012).

# <u>Individual tax returns processed through the MeF system must pass validation</u> rules to be accepted for processing

The MeF system uses three levels of validation. Once a tax return has passed all three levels of validation, it will enter the IRS's tax return validation stream. While this is a different approach to validating tax returns than the one currently employed by the Legacy *e-File* system, all of the Legacy system's error reject codes will be included in the three levels of MeF system validation. The three levels of validation include:

<u>Level 1 – Schema Validation</u> – A MeF system tax return is divided into a series of different data structures. Schemas provide the basic definitions for the data elements within each data structure and the interrelationships among the data elements (i.e., what is required, field length, data type, allowable field values, etc.). The MeF system verifies the accuracy of the data format in the tax return by validating each tax return against the individual schemas. If an error is found during the schema validation, the tax return is rejected.

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<sup>&</sup>lt;sup>4</sup> A 12-month accounting period for keeping records on income and expenses used as the basis for calculating the annual taxes due. For most individual taxpayers, the tax year is synonymous with the calendar year.



Level 2 – National Account Profile<sup>5</sup> Checks – The taxpayer, spouse, and dependent name controls and Social Security Numbers (SSN) contained on the tax return must match the information on the National Account Profile before the IRS will accept the tax return for processing. The MeF system conducts the same basic verification as the Legacy e-File system. As with schema validations, a tax return is rejected if it fails one or more of the National Account Profile validations.

Level 3 – Business Rule Check – The IRS established criteria or business rules that each tax return must pass before it can be processed electronically. The business rules are designed to validate basic requirements on a tax return, such as income limits for tax credits and deductions and the need to attach a specific schedule if certain conditions are present on the tax return. A tax return will be rejected if one or more of the business rules are not met.

This review was performed at the Wage and Investment Division Office of Electronic Tax Administration Headquarters in Washington, D.C., and the Modernization and Information Technology Services organization Headquarters in New Carrollton, Maryland, during the period January to June 2011. We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

However, our ability to sufficiently determine if the MeF system was accurately rejecting and accepting tax returns was limited due to problems obtaining complete electronic MeF system data timely. The IRS was unable to extract MeF system data for us in real-time, and our programmers encountered problems obtaining direct access due to problems interfacing with the IRS's Oracle platform. As a result, our assessment of whether the MeF system was accurately accepting or rejecting tax returns was based on our evaluation of the IRS's process to ensure the accuracy of system processing and conducting alternate testing, including determining whether a judgmental sample of tax returns was correctly accepted or rejected for processing. Detailed information on our audit objective, scope, and methodology is presented in Appendix I. Major contributors to the report are listed in Appendix II.

<sup>&</sup>lt;sup>5</sup> The National Account Profile is a compilation of selected entity data from the IRS Master Files, which are the databases that store various taxpayer information. The National Account Profile includes all valid and invalid taxpayer entity information.



# Results of Review

# Validation and Monitoring of Modernized e-File System Processing Continues to Be Deficient

Processes used to validate and monitor MeF system processing do not ensure the accuracy of processing of individual tax forms and schedules, including MeF system business rules designed to validate basic requirements on a tax return. As a result, the IRS continues to have limited assurance that the MeF system is accurately processing individual tax returns. Ineffective or insufficient monitoring of tax return processing increases the risk that individual tax returns processed through the MeF system will be erroneously accepted or rejected. This risk will grow as the volume of tax returns processed through the MeF system increases and the types of forms

and schedules are expanded.

IRS processes were not effective in ensuring the accuracy of 56,224 rejected tax returns and more than 1.3 million accepted tax returns.

Although no new forms or schedules were added for the 2011 Filing Season, the IRS still had to modify its computer programs to ensure they accurately reflect the tax law in effect for the applicable tax year. For example, for the 2011 Filing Season, the IRS had to ensure inflation adjustments, adjustments to income limits, new tax credits,

and other legislative changes were correctly programmed and applied to TY 2010 tax returns in addition to maintaining the TY 2009 amounts. For the 2011 Filing Season, the IRS had 28 documented requests for MeF system programming changes to correct system errors in addition to the changes necessary to implement new tax legislation. Despite the substantial modifications made for the 2011 Filing Season, system validation was deficient to ensure the accuracy of these modifications as they relate to the processing of tax returns through the MeF system.

The inadequacy of processes to test and monitor the MeF system is the same condition we reported in our review of MeF system processing in the 2010 Filing Season.<sup>6</sup> We reported that the IRS's monitoring of MeF system processing was ineffective. To address these concerns, we recommended that the IRS establish processes to timely monitor the transmission and processing of tax returns through the MeF system. The established processes should identify trends that may indicate problems with the inaccurate rejecting or accepting of tax returns and ensure rejected tax return explanations sent back to individuals are correct.

<sup>&</sup>lt;sup>6</sup> System Errors and Lower Than Expected Tax Return Volumes Affected the Implementation of the Modernized e-File System for Individual Income Tax Return Processing (Reference Number 2010-40-111, dated September 8, 2010).



The IRS agreed with our recommendation, indicating that for the 2011 Filing Season, the IRS would use a computer application to analyze available tax return data to identify trends that may indicate errors in tax return processing and to ensure rejected tax return explanations are correct. The IRS noted that these capabilities would enhance its ability to select an optimal sample size of MeF system tax returns to review, enhance the effectiveness of the actual review of those tax returns, and improve the overall monitoring of tax returns as they are processed. While the IRS took actions to address our concerns, the actions taken were insufficient and resulted in little improvement in the monitoring of individual tax returns *e-filed* through the MeF system.

# <u>Limited testing significantly restricted the IRS's ability to determine if the MeF</u> system is accurately processing individual tax returns

For the 2011 Filing Season, the IRS developed a three-phase plan to test the processing of individual tax returns once Release 6.2 was implemented. Figure 2 provides a description of the three-phase test plan.

Figure 2: MeF System Release 6.2 Hub Testing and Production Processing Events and Timeline

Testing Phase	Description of Testing Phase	Period Tested
Hub Testing	The first phase of production validation testing occurred 1 to 2 weeks before the official startup of the MeF system. During Hub Testing, a limited number of tax returns were transmitted through the MeF production system by a limited number of transmitters; they were processed and sent to other downstream systems to validate that they were being processed accurately from beginning to end.	January 11, 2011, through January 13, 2011
Production Processing Validation	The second part of production validation testing occurred after the completion of Hub Testing. Production Processing Validation continued at production startup and lasted for 2 weeks or until the number of rejected tax returns was similar to the rate of rejected tax returns in the Legacy <i>e-file</i> system.	January 18, 2011, through January 28, 2011
Form 1040 Schedule A Production Validation	The third testing process of production validation was limited to Form 1040 Itemized Deductions (Schedule A). A limited number of Schedule A transmissions were received from a limited number of transmitters to help test the programming requirements. <sup>7</sup> This was necessary because of the passage of late tax legislation that affected certain itemized deductions.	February 13, 2011

Source: MeF System Release 6.2 Hub Testing and Production Validation Plan.

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<sup>&</sup>lt;sup>7</sup> The IRS had to delay the processing of tax returns with an accompanying Schedule A to allow sufficient time to complete computer programming changes necessary for items on the Schedule A as a result of late legislation. The IRS began processing the Schedule A on February 14, 2011.



Our review determined that IRS plans to validate and monitor MeF system processing for the 2011 Filing Season individual tax returns were incomplete. Specifically, the IRS's plans did not include steps to verify the accuracy of all MeF system business rules and to ensure individual tax forms and schedules were accurately processed.

In addition, for the steps included in the plan, the IRS did not fully execute the steps, which further resulted in incomplete validation. These deficiencies significantly limit the IRS's ability to determine if the MeF system is processing individual tax returns accurately. Specifically, the IRS did not:

- Complete its review of 25,469 (98.7 percent) of the 25,794 TY 2010 accepted tax returns and 12,601 (91.9 percent) of the 13,709 TY 2010 rejected tax returns that should have been tested according to the IRS's validation plan.<sup>8</sup> In fact, the IRS only reviewed 1,108 (0.84 percent) of the 132,684 total TY 2010 tax returns that had rejected as of the end of the IRS's validation period (January 28, 2011).
- Validate the accuracy of MeF system processing for 176 of the 377 TY 2010 business
  rules because no tax returns rejected for these 176 business rules during the IRS's test
  period. The IRS did not expand its test period or conduct additional testing to ensure
  these 176 business rules were functioning properly. Our analysis of tax returns rejected
  by the MeF system as of April 18, 2011, identified 56,224 tax returns that had one or
  more reject conditions relating to these 176 business rules.
- Adequately validate 3 of the 23 TY 2010 tax forms and schedules eligible for MeF system processing. These forms are for reporting employee business expenses, noncash contributions greater than \$500, and penalties for underpayments of estimated taxes. The IRS had no plans to review two of these forms, and for the remaining form, the IRS did not receive an adequate number of tax returns containing this form during the test period. Our analysis of tax returns accepted by the MeF system as of April 18, 2011, showed that more than 1.3 million tax returns accepted through the MeF system could have included one of these forms.<sup>9</sup>

In addition, the IRS completed all of its testing on January 28, 2011, less than 2 weeks after the filing season began on January 18, 2011. With the exception of 1 day of testing for the Form 1040 Schedule A on February 13, 2011, the IRS did not conduct any additional testing of MeF system processing. Our analysis of tax returns transmitted through the MeF system as of April 18, 2011, identified that the IRS had received less than 16 percent (1.37 million) of the 8.7 million tax returns before it had completed testing of MeF system processing.

<sup>8</sup> One objective of the IRS's validation plan included identifying a statistically valid sample to be used to review and validate production processing end-to-end to ensure that returns are being processed properly.

<sup>9</sup> These tax returns contain information that would indicate the taxpayer may be required to file one or more of the tax forms in question. However, the IRS does not require the taxpayer to attach the tax form if certain conditions are met.



The IRS limited its testing by time period rather than by testing of specific tax forms, schedules, or business rules. By limiting testing to the beginning of the filing season, the IRS was only able to validate those tax forms, schedules, and business rules that related to those tax returns filed during this limited time period. Prior filing season trends indicate that some tax forms and schedules are more prevalent during different times of the filing season. As a result, tax returns filed early in the filing season would not be representative of all tax returns filed during the filing season.

We discussed with IRS management our concerns with the IRS's efforts to verify the accuracy of MeF system processing of individual tax returns. Management indicated that they had to reduce the number of individual tax returns verified during testing due to limited resources. In addition, management indicated that they believed a minimum sample of 10 of any one tax form or schedule was sufficient to provide assurance that the business rules applicable to that form were functioning properly. However, the IRS did not ensure that a minimum of 10 of each tax form or schedule submitted through the MeF system was tested. Our review of Release 6.1 found that the correct application of a given business rule can be affected by the conditions present on each individual tax return. As a result, an error in the application of a business rule may not appear on the first 10 tax returns rejected for that rule.

# The MeF system individual tax return test plan did not include an adequate review of prior year tax returns

Acceptance of prior year tax returns was the sole new functionality in place for the 2011 Filing Season. Prior to implementation of the MeF system, individuals who needed to file a tax return for a prior tax year had to file their tax return on paper, lengthening the time it takes the IRS to process the tax return and issue any associated refund. Our analysis of the IRS's testing of the processing of TY 2009 individual tax returns during the 2011 Filing Season identified that the IRS did not test 12 (54.5 percent) of the 22 TY 2009 tax forms and schedules. According to the IRS, 2,519 TY 2009 individual tax returns were transmitted through the MeF system as of April 18, 2011. Of the 2,519 tax returns transmitted,

634 were rejected.

The IRS indicated that it evaluated the processing of TY 2009 individual tax returns received early in the 2011 Filing Season. The IRS received 5 percent of all rejected and accepted TY 2009 individual tax returns during the testing period for prior year tax

The IRS did not adequately test the accuracy of processing of prior year tax returns despite that it was the only new functionality for the 2011 Filing Season.

returns. Due to the limited number of tax returns reviewed during the testing process, the IRS cannot be assured that significant errors do not exist in the processing of individual tax returns. Some of the errors we reported in our review of MeF system processing of individual tax returns during the 2010 Filing Season occurred on 1 or more of the 12 TY 2009 tax forms the IRS did not test. For example:



- Our previous review identified two errors associated with the Child and Dependent Care Expenses (Form 2441) during the 2010 Filing Season. The MeF system was incorrectly rejecting tax returns when there were multiple dependents identified and the qualified expenses were not child specific. In addition, the MeF system did not include an exception to the two-income requirement when a date of death existed for either the primary or secondary taxpayer.
- Our previous review indentified a missing business rule in the MeF system to address the reporting requirements for taxable interest and dividends on the Interest and Ordinary Dividends (Schedule B).

# The IRS did not ensure that errors identified in the 2010 Filing Season were corrected prior to processing individual tax returns in the 2011 Filing Season

In our testing of individual tax returns processed through the MeF system during the 2010 Filing Season, 19 (66 percent) of the 29 business rules<sup>10</sup> we analyzed as of April 21, 2010, appeared to reject in error or reject the tax returns without providing accurate explanations as to why they were rejected. Although the IRS took immediate action to correct 6 of the 19 errors, it could not immediately correct 13 of the 19 errors and indicated the errors would be corrected at a later date. We found that while the IRS took actions to prevent tax returns from rejecting for 12 of the 13 errors we identified in Fiscal Year 2010,<sup>11</sup> the action taken did not always correct the condition that caused the errors and undermined the benefits of the MeF system. For example:<sup>12</sup>

During MeF system validation, the IRS determines that the SSN for the child claimed as a dependent on the individual's tax return is not a valid SSN (the SSN was not issued by the Social Security Administration). The MeF system correctly rejects the tax return and notifies the individual that the child's SSN is not valid. The MeF system also notifies the taxpayer that the amount of the Health Savings Account Deduction claimed on the tax return exceeds the maximum allowable amount. However, the notification is incorrect as the amount claimed for the Health Savings Account Deduction is within the allowable limit; therefore, the individual should never have received this notification.

In the example above, rather than fixing the condition that caused the incorrect notification to be sent, the IRS instead programmed the MeF system to not verify specific business rules if certain conditions existed on the tax return. The IRS programmed the MeF system to bypass the validation of the maximum Health Savings Account Deduction limit if the child's SSN is not valid. As a result, the MeF system will not determine if the amount of the Health Savings

<sup>&</sup>lt;sup>10</sup> We selected these business rules for review based on the volume and concerns identified prior to the IRS accepting tax returns through the MeF system on February 17, 2010.

<sup>&</sup>lt;sup>11</sup> See Appendix V for a description of the six broad issues that resulted from the errors we identified on the 13 business rules in the 2010 Filing Season.

<sup>&</sup>lt;sup>12</sup> This example is hypothetical.



Account Deduction exceeds the maximum allowable amount until after the taxpayer corrects the child's SSN and resubmits the tax return. Subsequent to correcting the child's SSN, if the IRS determines there is an error with the Health Savings Account Deduction, the tax return will be rejected to the taxpayer again.

One of the benefits of the MeF system is the ability to identify multiple errors on a tax return before the tax return is rejected. The IRS's intent is to have the MeF system identify multiple errors on a tax return before rejecting the tax return so the taxpayer can address all of the errors at the same time. Programming the MeF system to bypass some checks when certain conditions exist undermines the intent of the streamlined validation process and reduces the benefits that the MeF system provides to taxpayers.

In response to concerns we raised regarding inadequate testing, IRS management indicated that post-implementation testing should be considered in conjunction with the IRS's pre-implementation testing to determine if testing was sufficient. We agree that the combination of pre- and post-implementation testing should provide the IRS assurance that MeF system Release 6.2 is functioning properly. However, our analysis of the IRS's pre-implementation testing indicates that processes are not in place to ensure identified errors are corrected before the initiation of processing. Our analysis of the MeF Release 6.2 pre-implementation test results indicated that the IRS again identified errors during testing and not all of the errors were corrected before Release 6.2 was deployed on January 18, 2011. As a result, we cannot rely on the IRS's use of pre-implementation testing for determining if specific business rules, tax forms, and schedules are being processed correctly through the MeF system. We identified this same issue during the 2010 Filing Season.

# Recommendations

The Commissioner, Wage and Investment Division, should:

**Recommendation 1:** Develop a comprehensive testing plan to ensure that a representative sample of all tax forms, schedules, and business rules applicable to individual tax returns transmitted through the MeF system (rejected and accepted) throughout the filing season is reviewed and all business rules applicable to those tax returns are verified. In addition, the Commissioner should ensure that the IRS adheres to the methodology developed for testing the accuracy of MeF system processing.

Management's Response: IRS management disagreed with this recommendation. The MeF system was developed under the guidance on the Enterprise Life Cycle – Enterprise Life Cycle Guidance, IRM 2.16.1. The Enterprise Life Cycle is the approach used by the IRS to manage initiatives and implement changes in business information systems. It provides a comprehensive project management structure for systems development that includes extensive planning, risk analysis, development, testing, milestone reviews, and certification processes. Testing activities include System



Acceptability Tests, System Integration Tests, Government Acceptance Tests, and Final Integration Tests. Prior to its deployment into the production environment, MeF Release 6.2, used in the 2011 Filing Season, was cleared by the Submission Processing Executive Steering Committee as having met and passed all milestone objectives and requirements.

Office of Audit Comment: We have and will continue to conduct both a pre-deployment and post-deployment review of the MeF system. As IRS management indicates in their response, after-the-fact verification once a system is in use is a necessary element. Our review focused on the IRS's efforts to ensure individual tax returns are accurately and timely processed. In response to our previous review, the IRS indicated that it would implement a three-phase plan to test the processing of tax returns through the MeF system in the 2011 Filing Season. However, as we reported, the IRS's plan was incomplete, and the IRS did not fully execute the steps included in the test plan.

**Recommendation 2:** Correct the 12 errors we identified in our review of MeF system processing during the 2010 Filing Season that resulted in incorrect notifications to the taxpayers when the tax returns were rejected. Actions taken should address the cause of the error, not simply prevent the notifications from occurring.

Management's Response: IRS management disagreed with this recommendation. The 12 errors were not related to any coding defect in the National Account Profile or the business rules. The problem was with incorrect entity data provided by the taxpayer on the tax return. Since the 12 business rules reference the same entity data, if the business rule results in a reject, any of the remaining business rules may reject as well. The corrective action the IRS took was to program the MeF system to bypass the remaining business rules (preventing the erroneous notifications) and subsequently reject the return. Once the taxpayer or preparer corrects the entity information and the return is resubmitted, the business rules and the National Account Profile can then accurately validate the data.

Office of Audit Comment: In response to our initial inquiry regarding these errors, IRS management agreed that the MeF system inappropriately and unnecessarily applied additional business rules when certain business rules were applied. They indicated that programming changes required to fix the problem were "complex and too risky" to implement during the 2010 Filing Season and would be implemented as part of a future MeF system release. They further indicated that interim actions (the suppression of the erroneous rejects) would be taken to mitigate the burden on taxpayers. To date, the IRS has not provided us with any information supporting that the actions taken to reduce taxpayer burden corrected the programming errors we identified.



# Lower Than Expected Tax Return Transmitter Participation and Tax Return Volumes Continue to Affect the Ability to Evaluate the Modernized e-File System

Lower than expected tax return transmitter participation and tax return volumes raise significant concern regarding the IRS's ability to ensure the MeF system can accurately process large volumes of *e-filed* tax returns and the IRS's ability to fully replace the Legacy *e-File* system for the 2013 Filing Season. Any disruption in the processing of *e-filed* individual tax returns after the IRS retires its Legacy *e-file* system could be catastrophic to the success of the IRS's *e-File* Program and its ability to successfully complete the processing of individual tax returns during the 2013 Filing Season.

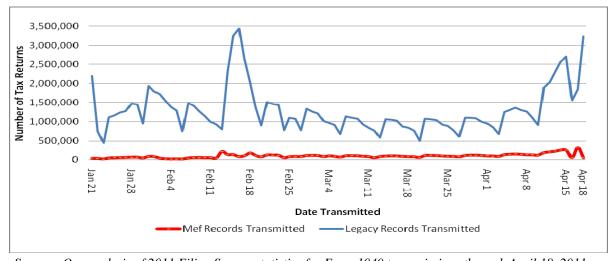
Despite the IRS's continued efforts to encourage tax return transmitters and States to use the MeF system for *e-filing* individual tax returns, the volume of individual tax returns transmitted

The IRS continues to receive significantly fewer individual tax returns through the MeF system than is needed to adequately test system capacity.

through the MeF system continues to be significantly lower than the IRS expected. As a result, the IRS is still unable to adequately test the system's capability to simultaneously process large volumes of individual tax returns. For example, on the highest volume day, the Legacy *e-File* system processed 3,352,201 *e-filed* tax returns compared to the MeF system's highest volume day with 329,463 *e-filed* tax returns processed. Figure 3 provides a comparison of the number of

tax returns transmitted daily through the MeF system and the Legacy *e-file* system from January 21, 2011, through April 18, 2011.

Figure 3: Comparison of Tax Returns Transmitted Daily Through the MeF and Legacy e-File Systems From January 21, 2011, Through April 18, 2011



Source: Our analysis of 2011 Filing Season statistics for Form 1040 transmissions through April 18, 2011.



The two primary goals to be achieved during the first two phases of MeF system implementation (2010 and 2011 Filing Season) were to allow the IRS to test the MeF system's basic functionality and ability to receive and process a large number of individual tax returns simultaneously. In addition, the phased-in approach would provide tax return transmitters and States the opportunity to fully develop and test the functionality needed to transmit individual tax returns through the MeF system. The IRS has not achieved either of these goals.

Despite the IRS's efforts to increase participation, we continue to remain concerned that low tax return transmitter participation and tax return volumes will make it unlikely that the IRS will be able to transition the *e-filing* of all individual income tax returns through the MeF system in the 2013 Filing Season. Once the IRS retires the Legacy *e-File* system in October 2012, any issues that arise with the ability of the MeF system to receive and process tax returns could have a significant impact on taxpayers. As of April 18, 2011, the IRS reported that more than 100 million individuals *e-filed* their tax return. This number will continue to grow as the IRS fully implements the mandate for tax return preparers who prepare more than 10 tax returns a year to file those tax returns electronically beginning in January 2012. An interruption in electronic tax return processing could force taxpayers to file their tax returns on paper, significantly increasing the amount of time taxpayers must wait to receive their refunds.

Of further concern is that the IRS's Modernization and Information Technology Service organization (the developer of the MeF system) is confident regarding the performance of the MeF system. This organization informed us that based on its testing of the MeF system, it believes the MeF system can function at expected processing levels. However, discussions with representatives from the IRS's Electronic Tax Administration function (the business user of MeF system) indicate that they also have concerns that system functionality and processing have not been adequately assessed. While the Modernization and Information and Technology System organization has tested MeF system performance and capacity through Release 6.2, it has not been able to test the system for a sustained time period. Without such testing, the IRS cannot be assured the MeF system can efficiently and accurately process the approximately 100 million *e-file* tax returns individuals file each year.

# <u>Participation in the MeF system by tax return transmitters and States continues to</u> be low

Tax return transmitters and States continue to be reluctant to use the MeF system. In response to our survey, both tax return transmitters and States continue to raise concerns as to whether the transition to the MeF system will go as planned. The IRS must be responsive to tax return transmitters' and States' concerns so that they will participate in the MeF system now rather than later. After the 2012 Filing Season, the only means of *e-filing* will be through the MeF system. IRS management indicated that they were confident tax return transmitters would make the switch to the MeF system rather than lose the ability to *e-file* tax returns. The loss of tax return



preparers' ability to e-file tax returns is not an option as there is a legislative mandate<sup>13</sup> requiring preparers to e-file. Beginning in January 2012, tax return preparers who prepare more than 10 tax returns a year must e-file those tax returns.

The number of tax return transmitters and States participating in the MeF system has more than doubled since the 2010 Filing Season, increasing from 22 tax return transmitters and States during the 2010 Filing Season to 45 tax return transmitters and States during the 2011 Filing Season. Figure 4 provides a comparison of the number of tax return transmitters and States participating in the MeF system for the 2010 and 2011 Filing Seasons.

Figure 4: Comparison of Tax Return Transmitters
Using the MeF System as of April 18, 2011

	2010 <sup>14</sup> Filing Season	2011 Filing Season	% Change
Return Transmitters Participating in MeF	22	45	105%
Electronic Return Transmitters	11	20	82%
States	11	25	127%

Source: IRS.

However, tax return transmitters' level of participation in the MeF system remains low. According to the IRS, tax return transmitters used 67 tax return preparation software packages to prepare and submit tax returns through the Legacy system during the 2011 Filing Season. Of the 67 software packages used to prepare and submit tax returns in the Legacy system, only 19 (28 percent) were used to *e-file* MeF tax returns.<sup>15</sup> In addition, the IRS indicated that 81.4 million tax returns were prepared using software approved for use with the MeF system but were submitted to the Legacy system. This equates to 82.2 percent of the 99 million tax returns submitted to the Legacy system as of July 14, 2011. Despite the large number of tax returns associated with MeF-approved software, the number of tax returns filed through the MeF system (9.6 million as of July 14, 2011) remains considerably less than what the IRS anticipated.

Tax return transmitters' and States' participation in the MeF system is voluntary. Tax return transmitters and States that intended to participate had to successfully complete the IRS testing process to ensure their systems met MeF system processing requirements for individual tax returns before they could begin transmitting tax returns through the MeF system.

IRS management indicated that issues encountered and decisions made by the three largest tax return transmitters resulted in the volume of tax returns processed through the MeF system being

<sup>&</sup>lt;sup>13</sup> Pub. L. No. 111-92, 123 Stat. 2984 (2009).

<sup>&</sup>lt;sup>14</sup> Data for the 2010 Filing Season are through April 15, 2010.

<sup>&</sup>lt;sup>15</sup> Of the 67 tax preparation software packages used in Legacy, 24 have been approved for use in the MeF system.



lower than expected for the 2011 Filing Season. These 3 transmitters process approximately 61.3 million *e-file* tax returns.<sup>16</sup> The IRS anticipated that these transmitters would *e-file* 40.4 million tax returns using the MeF system for the 2011 Filing Season.<sup>17</sup> Only 6 million (14.9 percent) of the anticipated 40.4 million were *e-filed* through the MeF system. Issues encountered and decisions made by these transmitters included:

- Two of the three tax return transmitters had problems with the development of the software they market to tax return preparers, which drastically reduced the number of tax returns processed through the MeF system during the beginning of the filing season.
- The third tax return transmitter decided at the last minute not to participate in MeF system processing until March 1, 2011. Even then, this transmitter decided to only transmit returns from a small portion of its tax preparer community around the country.

# <u>Significant concerns regarding technical expertise and system performance</u> hinder transmitter and State participation in the MeF system

We attempted to solicit input regarding MeF system participation from 19 approved tax return transmitters and 27 States to obtain their feedback on the MeF system. We received responses from 11 tax return transmitters (10 participating and 1 not participating) and 15 States (6 participating and 9 not participating). Survey results identified that State participation is dependent on internal factors, while tax return transmitter participation is based on concerns with MeF system performance. Of the States not participating in the MeF system that responded to our survey:

- Four States indicated that their participation in the MeF system has been hindered by limitations on the number of available personnel with the technical training and expertise necessary to develop an electronic filing system that would be compatible with the IRS's requirements for the MeF system. In a depressed economy, the need to allocate limited funding among projects with the highest priorities results in less funding available to acquire needed computer programming talents and computer equipment.
- One State reported problems with its computer or network that facilitates the sending and receiving of MeF system transmissions over the Internet. Technological problems with computer hardware limit the ability to connect between networks for transmitting data.
- Two States indicated that they were unable to participate in the MeF system because approved tax preparation software developers had not yet developed a MeF system version of their individual tax returns. The IRS indicated that most tax return transmitters

<sup>16</sup> The number of estimated tax returns is based on historical filing season data of the 23 forms supported by the MeF system and represent the maximum potential volume of tax returns supported by the MeF system.

<sup>&</sup>lt;sup>17</sup> The volume estimates include combined Forms 1040, States' submissions, and Forms 4868. The volume estimates were provided by transmitters.



will use the Legacy *e-File* system to transmit Federal tax returns if the State tax return must be transmitted using the Legacy *e-File* system, even if the return could otherwise have been transmitted in the MeF system.

While State participation in the MeF system appears to be limited by internal factors, our surveys of the approved transmitters indicated the lack of participation is due in some part to concerns with the performance and capability of the MeF system. For example:

- Four tax return transmitters were concerned with the performance of the MeF system, citing concerns with the timeouts they experienced during the 2011 Filing Season. A timeout is an interrupt signal generated by a program or device that has waited a certain length of time for some input but has not received it. For example, a timeout for the MeF system would prevent tax return transmitters from transmitting tax returns or receiving a response from the MeF system. Tax return transmitters reported delays in retrieving information, delays in receiving acknowledgements, and/or timeouts three times between January 20, 2011, and April 18, 2011. The IRS closed the last reported incident by stating that it has been working to identify the root cause to prevent this from happening in error again in the future.
- Two tax return transmitters were concerned that the IRS implemented major schema<sup>18</sup> changes for the 2011 Filing Season. Transmitters may need to modify their computer programs that prepare tax return files for transmission each time the IRS makes changes to the schema, or MeF system database structure, for individual tax returns. The time it takes to complete these changes can affect the number of tax returns a transmitter is able to send through the MeF system.
- Three tax return transmitters voiced concerns that tax returns were rejected in the MeF system that would not be rejected in the Legacy *e-File* system. Tax returns may be rejected in error if a business rule is programmed incorrectly in the MeF system. The same tax return would be accepted for processing in the Legacy *e-File* system. As discussed previously, the risk of such errors is high because of the limitations in the IRS's MeF system testing and monitoring plan. In addition, it is possible for a tax return to be rejected in the MeF system if the tax return is not sent in a specified format or schema.

Two tax return transmitters were particularly concerned with the reliability of the web services the IRS is using to receive tax return transmissions and send acknowledgements to tax return transmitters via the Internet. One tax return transmitter claimed that the web services the IRS is using are unstable and have a limited ability to handle a large number of simultaneous

<sup>&</sup>lt;sup>18</sup> A schema change is a change in the data structure of information. A schema defines the data elements within each data structure and the interrelationships among the data elements (i.e., what is required, field length, data type, allowable field values, etc.).



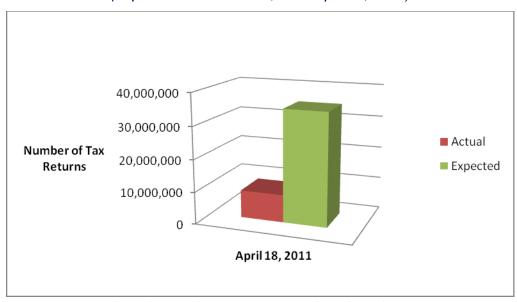
transactions. The other transmitter responded that one of the symptoms of the unstable service is a repeated number of system timeouts.

We raised the transmitters' concerns with the MeF system web services to IRS management. IRS management indicated that numerous improvements were made for MeF Release 6.2 to enhance system performance. In addition, management stated the system was stable and indicated that most of the external customers they have spoken to have complimented them on MeF system performance. Management also indicated they have conducted testing of the web services used by the MeF system and are confident the services are adequate to handle the current volume of individual tax returns being processed through the MeF system. Additional testing of the web services is planned as the IRS expands the use of the MeF system for individual tax returns. We referred the concerns we received regarding the reliability of the MeF system web services to our Security and Information Technology Services program.

# <u>The volume of tax returns e-filed through the MeF system is significantly short of IRS goals</u>

The number of individual tax returns transmitted through the MeF system as of April 18, 2011, (8.7 million) is significantly lower than the 35 million individual tax returns the IRS anticipated for the 2011 Filing Season. Figure 5 provides a comparison of the volume of individual tax returns transmitted through the MeF system as of April 18, 2011, compared to the number of tax returns the IRS expected to receive during the 2011 Filing Season.

Figure 5: 2011 Filing Season Volume of Individual Tax Returns E-Filed Through the MeF System (Expected Versus Actual, as of April 18, 2011)



Source: Our analysis of 2011 Filing Season statistics through April 18, 2011.



The tax return volume is low despite the fact that the IRS began accepting individual tax returns through the MeF system approximately 30 calendar days earlier than it did last year. Although the volume received is substantially lower than expected, it has increased over the number of tax returns filed through the MeF system during the 2010 Filing Season. For example, as of April 18, 2011, the volume of individual tax returns filed through the MeF system (almost 8.7 million tax returns) has increased by 729 percent when compared to the volume filed through the MeF system for all of the 2010 Filing Season. However, the number of tax returns filed through the MeF system represents only 7.3 percent of the total population of tax returns *e-filed* as of April 18, 2011. Figure 6 below compares the volume of tax returns *e-filed* through the MeF and Legacy *e-File* systems.

8.7 million
7.3%

Tax returns e-filed through Legacy

Tax returns e-filed through MeF

Figure 6: 2011 Filing Season Tax Return Receipts as of April 18, 2011

Source: Our analysis of 2011 Filing Season statistics through April 18, 2011.

# Our prior review reported the same concerns with MeF system participation and tax return volumes as we are reporting for the 2011 Filing Season

In our prior review, <sup>19</sup> we reported that lower than expected tax return transmitter participation and tax return volumes limit the IRS's ability to evaluate the performance of the MeF system.

<sup>19</sup> System Errors and Lower Than Expected Tax Return Volumes Affected the Implementation of the Modernized e-File System for Individual Income Tax Return Processing (Reference Number 2010-40-111, dated September 8, 2010).



The IRS anticipated processing 9.3 million tax returns through its MeF system by April 15, 2010. However, the IRS only received 752,320 tax returns (8 percent). As a result, the IRS was unable to assess the capability of the system to handle large volumes of tax returns. We recommended that the IRS work with tax return transmitters and States to identify and address concerns and conditions that prevented them from participating in the MeF system and encourage them to participate in it during the 2011 Filing Season.

Management agreed with our recommendation, stating that they had begun working with tax return transmitters and States to identify and address concerns and conditions that prevented them from participating in the MeF system and encourage them to participate in the MeF system during the 2011 Filing Season. The IRS also stated that efforts were underway to identify and implement system performance enhancements to ensure the MeF system can process the anticipated volume of individual tax returns for the 2011 Filing Season. The IRS noted that it has taken steps to address tax return transmitter and State concerns with the performance of the MeF system. The IRS indicated implementation of this recommendation would start August 15, 2010, and continue through the 2012 Filing Season, with a target completion of April 15, 2012. We are conducting a separate review to assess the IRS's specific system performance enhancements.

# Recommendations

The Commissioner, Wage and Investment Division, should:

**Recommendation 3:** Continue to work with tax return transmitters and States to identify and address concerns and conditions related to MeF system performance and the use of web services for the efficient transmission of individual tax returns that are hindering their participation in MeF system individual tax return filing.

**Management's Response:** IRS management agreed with the recommendation. The IRS will continue to work with the tax return transmitter and States to leverage various forms of communication to identify and address concerns, as well as to promote features and benefits of the MeF program. These outreach/communication activities include:

- Software Developer Conferences.
- Industry calls.
- Working group meetings.
- External mailboxes.
- Webinars.
- QuickAlerts.



- Publication 4163 (MeF Information for Authorized IRS e-file Providers for Business Returns).
- Publication 4164 (MeF Guide for Software Developers and Transmitters).
- Other information published to IRS.gov.

The IRS will continue to use its well established issue tracking and defect process, the Integrated Technology Asset Management System, to address MeF Assurance Testing System testing and production issues.

**Recommendation 4:** Ensure MeF system testing includes an assessment of the reliability of the MeF system performance and the use of web services for individual tax return transmissions. Testing should also provide assurance that the MeF system has the capacity necessary to receive, validate, and process the entire volume of individual *e-file* tax returns the IRS expects to receive during the 2012 Filing Season, not just those it anticipates receiving through the MeF system. Such an assessment is vital if the IRS intends to retire the Legacy *e-file* system at the end of the 2012 Filing Season.

**Management's Response:** IRS management agreed with the recommendation. During the Performance Testing activities, the IRS will test a variety of return-type mixes and volumes to simulate the production volume expected during the 2012 Filing Season and the total *e-file* volume.

# Key Functionality of the Modernized e-File System to Attach Scanned Documents to Individual Tax Returns Is Not Being Promoted or Used

One of the benefits of the MeF system is the ability for taxpayers to attach supplemental information to their tax return in a PDF file. The IRS indicated that the Legacy *e-File* system was unable to handle the wide variety of required and recommended supporting documents that would have to be scanned and submitted.

The IRS indicated that it has tested the ability of the MeF system to receive and process PDF attachments. This testing included individual tax returns with attachments of varying sizes. Tax return transmitters have reported transmitting some tax returns with PDF attachments through the MeF system. However, as with tax returns without PDF attachments, we remain concerned that the volume of tax returns with PDF attachments received may not be enough to provide the IRS with sufficient information to evaluate whether or not the MeF system can effectively receive, process, and store a large number of tax returns with PDF attachments.



# IRS and tax return transmitters are not promoting the ability to attach scanned documents to tax returns e-filed through the MeF system

The IRS has not pursued use of the MeF system as an option when individuals are required to provide specific documentation with their tax returns. For example, recent documentation verification requirements for claiming the First-Time Homebuyer Credit and Adoption Credit meant that individuals claiming these credits had to file paper tax returns and could not *e-file* their tax returns. The MeF system provides the IRS with the ability to allow these individuals to scan and attach documents to their *e-filed* tax returns. In addition, the IRS is not actively marketing the ability to attach supplemental information to individual tax returns *e-filed* through the MeF system.

We reviewed various sources of information related to MeF system functionality and found that the IRS has made transmitters aware of the ability to send attachments with a tax return. However, transmitters are raising concerns regarding MeF system performance and the attaching of scanned documents to individual tax returns. During a

Tax return transmitters are not offering taxpayers and tax return preparers the option to attach PDF documents to a tax return.

May 2011 meeting that the IRS had with tax return transmitters, concerns were raised about the impact that different sizes of scanned documents and the increase in size of the tax return file with PDF attachments would have on MeF system processing. The IRS also asked tax return transmitters' opinions on the reasonableness of requiring a limited number of tax forms and schedules (10) that currently cannot be *e-filed* in the MeF system to be included as PDF documents during the 2012 Filing Season. These tax forms and schedules are low volume. Including these as a PDF would alleviate the need to develop programming for these tax forms and schedules to be accepted via the MeF system for the 2012 Filing Season. Requiring certain supplemental information to be filed as a PDF document would provide the IRS with valuable information regarding the ability of the MeF system to receive, process, and store tax returns with PDF attachments. Two of the tax return transmitters in the meeting stated they would choose to file tax returns in the Legacy *e-File* system rather than use the PDF function in the MeF system.

Our surveys of tax return transmitters confirmed the concerns raised by the two tax return transmitters in the May 2011 meeting. We identified that tax return transmitters do not appear to be receptive to including PDF attachments when filing individual tax returns. While tax return transmitters are aware that PDF documents can be filed with an individual tax return, six tax return transmitters who responded to our survey indicated they have not provided individuals with the use of this option or only provided it on a limited basis.

Although the IRS has fully developed and implemented the capability for the MeF system to accept scanned files, anticipating the number of scanned documents that the IRS may require and receive in the future presents an added challenge to the IRS in planning the capacity needed to effectively receive, process, and store tax returns in the MeF system. If the IRS does not



adequately plan for the ability to receive, store, and retrieve PDF tax return attachments, it could undermine a very valuable benefit of the MeF system and jeopardize the IRS's ability to effectively implement future tax law changes with the least impact on taxpayers.

# Recommendations

The Commissioner, Wage and Investment Division, should:

**Recommendation 5:** Adequately test the MeF system to ensure MeF system functionality related to receiving, processing, storing, and retrieving PDF attachments for individual tax returns. Testing should include an assessment of the impact various sizes and types of PDF documentation has on MeF system functionality.

Management's Response: IRS management agreed with this recommendation and believes it is addressed through testing of MeF system functionality prior to production implementation. For the 2011 Filing Season, PDF functionality was tested for all types of PDF attachments supported by the MeF system for individual tax returns. Testing was performed using PDF files of varying sizes, including files greater than 60 megabytes, which caused the returns to be rejected. Testing was performed to verify that the MeF system could receive and process the full variety of PDF files, and testing was performed on the Modernized Tax Return Database system to verify the system could store and display tax returns, forms, and schedules with PDF attachments. The same level of testing will be performed as part of the IRS's annual testing for the 2012 Filing Season and is scheduled for completion by December 30, 2011.

**Recommendation 6:** Promote the functionality of the MeF system in accepting scanned attachments. In particular, the IRS should offer the use of *e-filing* through the MeF system when specific documents are required to be attached to an individual tax return in support of credits, deductions, etc., for which the IRS has required taxpayers to file a paper tax return.

<u>Management's Response</u>: IRS management agreed with this recommendation. The IRS will continue to promote the benefits of PDF attachments via the IRS.gov website, in industry calls and meetings, and in IRS publications and other literature.

While it is preferred that all forms and schedules implemented on the MeF platform be submitted in XML format in support of the IRS data strategy, there are certain situations in which PDF attachments are accepted, such as late legislation, other unscheduled forms changes, and unstructured data (signatures or third-party documentation).

As with other deployment decisions, the IRS will continue to seek internal and external input and will determine on a case-by-case basis the best format (XML, PDF, or paper) for processing forms and supporting documentation.



# **Appendix I**

# Detailed Objective, Scope, and Methodology

The overall objective of this review was to evaluate the continued implementation of the MeF system to determine whether individual income tax returns will be accurately and timely processed and whether sufficient progress is being made to replace the Legacy *e-File* system for individual tax returns in the 2013 Filing Season.<sup>1</sup> To accomplish this objective, we:

- I. Determined whether the IRS correctly addressed issues identified in our Fiscal Year 2010 review of the implementation of MeF system Release 6.1<sup>2</sup> and verified changes were made for Processing Year<sup>3</sup> 2011.
  - A. Obtained documentation of requested MeF system programming changes from the IRS Work Request Management System to determine whether programming changes were made to correct issues identified in our review of the MeF system Release 6.1.
  - B. Analyzed the programming changes described in the IRS Work Request Management System to determine if the changes made resolved the issues identified in our review of the MeF system Release 6.1.
- II. Determined whether the MeF system correctly rejected and accepted individual income tax returns during the 2011 Filing Season.
  - A. Obtained the MeF system documentation needed to allow us, with the assistance of our Information Services staff and the IRS, to obtain and analyze individual income tax returns processed by the MeF system during the 2011 Filing Season.
  - B. Obtained IRS statistics on volumes of electronic tax returns transmitted in both the Legacy *e-File* and MeF systems and compared the daily volumes.
  - C. Obtained the MeF system individual income tax return data that were accepted and processed from the weekly IRS Individual Return Transaction File<sup>4</sup> for all accepted and processed tax returns. We utilized these data to determine whether the accepted tax forms and schedules were correctly processed and IRS corrective action to the

<sup>1</sup> The period from January through mid-April when most individual income tax returns are filed. However, individuals may continue to file tax returns through October if they apply for an extension of time to file.

<sup>&</sup>lt;sup>2</sup> System Errors and Lower Than Expected Tax Return Volumes Affected the Implementation of the Modernized e-File System for Individual Income Tax Return Processing (Reference Number 2010-40-111, dated September 8, 2010).

<sup>&</sup>lt;sup>3</sup> The calendar year in which the tax return or document is processed by the IRS.

<sup>&</sup>lt;sup>4</sup> The Individual Return Transaction File contains all edited, transcribed, and error-corrected data from the Form 1040 series and related forms for the current processing year and 2 prior years.



- issues we identified in our prior audit were effective. We validated the reliability of the IRS's Individual Return Transaction File computer-processed data by comparing it with the IRS's Integrated Data Retrieval System<sup>5</sup> and Employee User Portal.<sup>6</sup>
- D. Surveyed 27 State taxing authorities and 19 approved MeF system transmitters regarding individual tax returns transmitted through the MeF system during the 2011 Filing Season and additional concerns with the MeF system processing season.
- III. Determined whether the IRS adequately tested and monitored MeF system processing for individual tax returns during the 2011 Filing Season.
  - A. Obtained IRS testing plan and test results from three separate IRS tests, referred to as "Production Validation," conducted in January and February 2011.
  - B. Obtained statistics on volumes of tax returns accepted and rejected in the MeF system and analyzed the volumes of tax returns reviewed during the IRS testing period.
- IV. Determined whether the IRS promoted the capability of scanning and attaching supplemental information to tax returns in a PDF file.

# Internal controls methodology

Internal controls relate to management's plans, methods, and procedures used to meet their mission, goals, and objectives. Internal controls include the processes and procedures for planning, organizing, directing, and controlling program operations. They include the systems for measuring, reporting, and monitoring program performance. We determined the following internal controls were relevant to our audit objective: the controls in place to ensure 1) all of the error reject codes included in the Legacy *e-File* system were included in the MeF system and 2) tax returns were properly accepted or rejected by the MeF system.

<sup>&</sup>lt;sup>5</sup> IRS computer system capable of retrieving or updating stored information. It works in conjunction with a taxpayer's account records.

<sup>&</sup>lt;sup>6</sup> IRS computer system used to review tax return information transmitted in the MeF system.



# **Appendix II**

# Major Contributors to This Report

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# **Appendix III**

# Report Distribution List

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Audit Liaisons:

Director, Program Oversight OS:CIO:SM:PO

Chief, Program Evaluation and Improvement, Wage and Investment Division

SE:W:S:PEI



# **Appendix IV**

# Individual Tax Return Forms and Schedules Included for Processing in the Modernized e-File System Release 6.2 Deployment

Form Number	Form Name
Form 1040	U.S. Individual Income Tax Return
Schedule A	Itemized Deductions
Schedule B	Interest and Ordinary Dividends
Schedule C	Profit or Loss From Business
Schedule D	Capital Gains and Losses
Schedule E	Supplemental Income and Loss
Schedule EIC	Earned Income Credit
Schedule M	Making Work Pay
Schedule R	Credit for the Elderly or the Disabled
Schedule SE	Self-Employment Tax
Form 1099-R	Distributions From Pensions, Annuities, Retirement or Profit-Sharing Plans, IRAs, Insurance Contracts, etc.
Form 2106	Employee Business Expenses
Form 2210	Underpayment of Estimated Tax by Individuals, Estates, and Trusts
Form 2441	Child and Dependent Care Expenses
Form 4562	Depreciation and Amortization
Form 4868	Application of Automatic Extension of Time To File U.S. Individual Income Tax Return
Form 8283	Noncash Charitable Contributions
Form 8812	Additional Child Tax Credit
Form 8829	Expenses for Business Use of Your Home
Form 8863	Education Credits (American Opportunity and Lifetime Learning Credits)
Form 8880	Credit for Qualified Retirement Savings Contributions
Form 8888	Direct Deposit of Refund to More Than One Account
Form W-2	Wage and Tax Statement

Source: IRS.gov web site, Forms and Publications webpages.



# **Appendix V**

# Description of Modernized e-File System Release 6.1 Errors Not Corrected During the 2010 Filing Season

During our review of the processing of individual tax returns for MeF system Release 6.1,¹ we determined that 19 (66 percent) of the 29² business rules we analyzed as of April 21, 2010, appeared to reject in error or reject the tax returns without providing accurate explanations as to why they were rejected. The IRS took immediate action to correct 6 of the 19 business rules with errors. However, the IRS indicated it would correct the remaining 13 business rules in MeF system Release 6.2. Figure 1 describes the 6 broad issues that resulted from errors in the 13 business rules for which corrective action was not taken during the 2010 Filing Season³ and the status of the IRS's actions to correct the errors as of April 18, 2011. Each issue described may have been caused by one or more of the 13 business rules we identified in our review of MeF Release 6.1.

Figure 1: Description of MeF System Release 6.1 Errors Not Corrected During the 2010 Filing Season

Issue	Date IRS Was Notified	IRS Action Taken	Audit Comment
Programming errors are causing incorrect rejections when there is a dependent SSN/name control mismatch and the business rule that requires the dependent SSN and name control to match the <i>e-file</i> database generates. If the Earned Income Tax Credit was claimed, the business rule addressing an SSN/name control mismatch for a qualifying child also generates.	3/2/2010	Action Planned  The IRS planned to make changes for Release 6.2 for Processing Year 2011. These changes are complex and, as such, were deferred to a later release to mitigate the risk to the 2010 Filing Season. An interim plan was implemented to mitigate the impact on taxpayers.	The IRS has not corrected the error.

<sup>&</sup>lt;sup>1</sup> System Errors and Lower Than Expected Tax Return Volumes Affected the Implementation of the Modernized e-File System for Individual Income Tax Return Processing (Reference Number 2010-40-111, dated September 8, 2010).

<sup>&</sup>lt;sup>2</sup> We selected these business rules for review based on the volume and concerns identified prior to the IRS accepting tax returns through the MeF system on February 17, 2010.

<sup>&</sup>lt;sup>3</sup> The period from January through mid-April when most individual income tax returns are filed. However, individuals may continue to file tax returns through October if they apply for an extension of time to file.

<sup>&</sup>lt;sup>4</sup> The calendar year in which the tax return or document is processed by the IRS.



Issue	Date IRS Was Notified	IRS Action Taken	Audit Comment
Tax returns are rejecting in error when the taxpayer correctly provided the prior year Adjusted Gross Income and/or Personal Identification Number as required for electronically filed returns.	3/2/2010	Action Planned  The IRS planned to make changes for Release 6.2 for Processing Year 2011. These changes are complex and, as such, were deferred to a later release to mitigate the risk to the 2010 Filing Season. The IRS planned to take interim action to mitigate the impact on taxpayers.	The IRS has corrected the error.
Programming errors are causing incorrect rejections when there is a primary SSN/name control mismatch and the business rule that requires the primary SSN and name control to match the <i>e-file</i> database generates.	3/3/2010	Action Planned  The IRS planned to make changes for Release 6.2 for Processing Year 2011. These changes are complex and, as such, were deferred to a later release to mitigate the risk to the 2010 Filing Season. The IRS planned to take interim action to mitigate the impact on taxpayers.	The IRS has not corrected the error.
Programming errors are causing incorrect rejections when there is a secondary SSN/name control mismatch and the business rule that requires the secondary SSN and name control to match the <i>e-file</i> database generates.	3/5/2010	Action Planned  The IRS planned to make changes for Release 6.2 for Processing Year 2011. These changes are complex and, as such, were deferred to a later release to mitigate the risk to the 2010 Filing Season. The IRS planned to take interim action to mitigate the impact on taxpayers.	The IRS has not corrected the error.



Issue	Date IRS Was Notified	IRS Action Taken	Audit Comment
Programming errors are causing incorrect rejections when there is an employer name/Employer Identification Number mismatch on Wage and Tax Statement (Form W-2) and the business rule that requires the Employer Identification Number to match the information in the <i>e-file</i> database generates. We also noted a similar condition could exist with payer name/Employer Identification Number mismatches on Distributions From Pensions, Annuities, Retirement or Profit-Sharing Plans, IRAs, Insurance Contracts, etc. (Form 1099-R) and the business rule that requires the Employer Identification Number to match the <i>e-file</i> database.	3/5/2010	Action Planned  The IRS planned to make changes for Release 6.2 for Processing Year 2011. These changes are complex and, as such, were deferred to a later release to mitigate the risk to the 2010 Filing Season. The IRS planned to take interim action to mitigate the impact on taxpayers.	The IRS has not corrected the error.
Programming errors are causing incorrect rejections for the Making Work Pay Credit when there is a primary or secondary SSN/name control mismatch and the applicable business rules are correctly applied.	3/12/2010	Action Planned  The IRS planned to make changes for Release 6.2 for Processing Year 2011. These changes are complex and, as such, were deferred to a later release to mitigate the risk to the 2010 Filing Season. The IRS planned to take interim action to mitigate the impact on taxpayers.	The IRS has not corrected the error.

Source: Our review of MeF system Release 6.1 and IRS Unified Work Requests.



# **Appendix VI**

# Management's Response to the Draft Report



DEPARTMENT OF THE TREASURY INTERNAL REVENUE SERVICE ATLANTA, GA 30308



September 16, 2011

MEMORANDUM FOR MICHAEL R. PHILLIPS

DEPUTY INSPECTOR GENERAL FOR AUDIT

FROM: Richard Byrd, Jr.

Commissioner, Wage and Investment Division

SUBJECT: Draft Audit Report – Low Participation and Tax Return Volumes

Continue to Hinder the Transition of Individual Income Tax Returns to the Modernized e-File System (Audit # 201140030)

We have reviewed your draft report of the subject audit concerning the Modernized e-File (MeF) Program. In brief, you have made a number of valuable recommendations with which we generally agree and will implement, subject to resource limitations.

We are concerned however, that this report contains mischaracterizations with respect to the overall quality control process, and we disagree with the characterization that the Modernized e-File systems underwent "limited testing". TIGTA principally reports on the post-deployment verification steps that the IRS took once the MeF system was processing live tax returns without any mention or analysis of the significant testing effort undertaken as part of the software development process. In our view, this omission is of particular issue when considered in light of the generally agreed best practice that quality control is most important during the design and development process. After-the-fact verification once a system is in use is a necessary element of an overall process, but is substantially less critical than the upfront testing and quality control.

It is for this reason that during the 2011 filing season, the IRS adapted its approach to verification during the filing season and decided to perform fewer verifications once the system was up and running smoothly. This was a common sense resource allocation decision.

Regarding the section in your report "Participation in the MeF system by tax return transmitters and States continues to be low", we agree that transmitter participation is lower than where we would like it to be. However, we believe that the comparison of the number of tax returns filed with MeF to the number of tax returns prepared using MeF tested and approved software is not a valid comparison.



2

The report states that "81.4 million tax returns were prepared using software that was approved for use with the MeF system but submitted to the Legacy system." The report also states that 9.6 million tax returns were filed through MeF. It is not correct to try and relate the number of tax returns filed with MeF to the number of tax returns prepared using software that was approved for use with MeF. A substantial number of the 81.4 million tax returns include several tax forms and schedules currently not supported by MeF. Once the software packages used to prepare these tax returns are tested and approved as MeF compliant for the 2012 processing year, substantially all of these tax returns will be eligible for MeF processing.

As the report further states, three transmitters had anticipated submitting 40.4 million tax returns. Two transmitters encountered issues with their software and the third transmitter made a business decision to defer MeF processing until after the extender legislation was deployed into production, resulting in only 6 million tax returns being submitted to MeF by these three transmitters. Therefore, this low volume was not caused by any problems with the MeF application. While W&I did work with these transmitters on resolving their issues, in the interim, the transmitters chose to send most of their tax returns to Legacy e-File. Had these three transmitters submitted through MeF as originally planned, it is likely that MeF would have received an additional 34.4 million tax returns. During the MeF migration transition period (FS 2010 through FS 2012), transmitters determine which system to send their returns based on their business model.

We agree with four out of the six recommendations and look forward to continued involvement by TIGTA in the next phase of the 1040 MeF deployment.

Our specific comments to your recommendations are attached. If you have any questions, please contact me, or a member of your staff may contact Cecille M. Jones, Acting Director, Electronic Tax Administration and Refundable Credits, Wage and Investment Division at (202) 622-7990.

Attachment



Attachment

The Commissioner, Wage and Investment Division, should:

### Recommendation 1

Develop a comprehensive testing plan to ensure that a representative sample of all tax forms, schedules, and business rules applicable to individual tax returns transmitted through the MeF system (rejected and accepted) throughout the filing season is reviewed and all business rules applicable to those tax returns are verified. In addition, the Commissioner should ensure that the IRS adheres to the methodology developed for testing the accuracy of MeF system processing.

# **Corrective Action**

We disagree with this recommendation. The Modernized e-File (MeF) system was developed under the guidance of the Enterprise Life Cycle (ELC) — Enterprise Life Cycle Guidance, IRM 2.16.1. The ELC is the approach used by the IRS to manage initiatives and implement changes in business information systems. It provides a comprehensive project management structure for systems development that includes extensive planning, risk analysis, development, testing, milestone reviews, and certification processes. Testing activities include System Acceptability Tests, System Integration Tests, Government Acceptance Tests, and Final Integration Tests. Prior to deployment into the production environment, MeF Release 6.2, used in the 2011 Filing Season, was cleared by the Submission Processing Executive Steering Committee as having met and passed all milestone objectives and requirements.

### **Implementation Date**

N/A

# Responsible Official

N/A

# Corrective Action Monitoring Plan

N/A

### Recommendation 2

Correct the 12 errors we identified in our review of MeF system processing during the 2010 Filing Season that resulted in incorrect notifications to the taxpayers when the tax returns were rejected. Actions taken should address the cause of the error, not simply prevent the notifications from occurring.

# Corrective Action

We disagree with this recommendation. The 12 errors were not related to any coding defect in the National Account Profile (NAP) or the business rules. The problem was with incorrect entity data provided by the taxpayer on the tax return. Since the 12 business rules reference the same entity data, if the first business rule results in a



2

reject, any of the remaining business rules may reject as well. The corrective action we took was to program MeF to bypass the remaining business rules (preventing the erroneous notifications) and subsequently reject the return. Once the taxpayer or preparer corrects the entity information and the return is resubmitted, the business rules and the NAP can then accurately validate the data.

# **Implementation Date**

N/A

## Responsible Official

N/A

# Corrective Action Monitoring Plan

N/A

The Commissioner, Wage and Investment Division, should:

### Recommendation 3

Continue to work with tax return transmitters and States to identify and address concerns and conditions related to MeF system performance and the use of web services for the efficient transmission of individual tax returns that are hindering their participation in MeF individual tax return filing.

# **Corrective Action**

We agree with this recommendation. We will continue to work with the tax return transmitters and States to leverage various forms of communication to identify and address concerns, as well as to promote features and benefits of the MeF program. These outreach/communication activities include:

- Software Developer Conferences
- Industry calls
- Working group meetings
- External mailbox
- Webinar
- QuickAlerts
- Publication 4163 (Modernized e-file (MeF) Information for Authorized IRS e-file Providers for Business Returns)
- Publication 4164 (Modernized e-file Guide for Software Developers and Transmitters)
- · Other information published to IRS.gov



3

We will continue to use the IRS' well established issue tracking and defect process, the Integrated Technology Asset Management System, to address MeF Assurance Testing System testing and production issues.

### **Implementation Date**

October 15, 2012

### Responsible Official

Acting Director, Electronic Tax Administration and Refundable Credits, Wage and Investment Division

## Corrective Action Monitoring Plan

The IRS will monitor this corrective action as part of its internal management control system.

### Recommendation 4

Ensure MeF system testing includes an assessment of the reliability of the MeF system performance. Testing should include an assessment of the reliability of MeF system performance and the use of web services for individual tax return transmissions. Testing should also provide assurance that the MeF system has the capacity necessary to receive, validate, and process the entire volume of individual *e-file* tax returns the IRS expects to receive during the 2012 Filing Season, not just those it anticipates receiving through the MeF system. Such an assessment is vital if the IRS intends to retire Legacy *e-file* system at the end of the 2012 Filing Season.

# **Corrective Action**

We agree with this recommendation. During the Performance Testing activities, we will test a variety of return-type mixes and volumes to simulate production volume expected during the 2012 Filing Season and total *e-File* volume.

# **Implementation Date**

February 1, 2012

# Responsible Official

Associate Chief Information Officer, Applications Development; Submission Processing Domain, Modernization and Information Technology Services

# **Corrective Action Monitoring Plan**

The IRS will monitor this corrective action as part of its internal management control system.



4

The Commissioner, Wage and Investment Division, should:

### Recommendation 5

Adequately test the MeF system to ensure MeF system functionality related to receiving, processing, storing, and retrieving PDF attachments for individual tax returns. Testing should include an assessment of the impact various sizes and types of PDF documentation has on MeF system functionality.

## Corrective Action

We agree with this recommendation and believe it is addressed through our testing of MeF system functionality prior to production implementation. For the 2011 Filing Season (FS), Portable Document Format (PDF) functionality was tested for all types of PDF attachments supported by MeF for individual tax returns. Testing was performed using PDF files of varying sizes, including files greater than 60MB, which cause the return to be rejected. Testing was performed to verify MeF could receive and process the full variety of PDF files, and testing was performed on the Modernized Tax Return Database system to verify the system could store and display tax returns, forms, and schedules with PDF attachments. This same level of testing will be performed as part of our annual testing for the 2012 FS and is scheduled to complete by December 30, 2011.

# Implementation Date

February 1, 2012

### Responsible Official

Associate Chief Information Officer, Applications Development; Enterprise Systems Testing Domain, Modernization and Information Technology Services

# Corrective Action Monitoring Plan

The IRS will monitor this corrective action as part of its internal management control system.

# Recommendation 6

Promote the functionality of the MeF system in accepting scanned attachments. In particular, the IRS should offer the use of e-filing through the MeF system when specific documents are required to be attached to an individual tax return in support of credits, deductions, etc. for which the IRS has required taxpayers to file a paper tax return.



5

## **Corrective Action**

We agree with this recommendation. The IRS will continue to promote the benefits of PDF attachments via the IRS.gov website, in industry calls and meetings, and in IRS publications and other literature.

While it is preferred that all forms and schedules implemented on the MeF platform be submitted in Extensible Markup Language (XML) format in support of the IRS data strategy, there are certain situations in which PDF attachments are accepted, such as late legislation, other unscheduled form changes, and unstructured data (signature or third party documentation).

As with other deployment decisions, the IRS will continue to seek internal and external input, and will determine on a case by case basis the best format (XML, PDF, or paper) for processing forms and supporting documentation.

## **Implementation Date**

February 15, 2012

# Responsible Official

Acting Director, Electronic Tax Administration and Refundable Credits, Wage and Investment Division

# **Corrective Action Monitoring Plan**

The IRS will monitor this corrective action as part of its internal management control system.